

Lesson 1: Tools of Scientific Exploration

- Scientists rely on many **technological tools** in their explorations.
- These tools help them in scanning and detecting buried object under the earth's surface

Such as (**Metals – Antiquities – Treasures**)

- يعتمد العلماء والمستكشفون على كثير من الأدوات التكنولوجية فى استكشافاتهم
- تساعد هذه الأدوات فى عملية المسح والبحث عن الأجسام المدفونة تحت الأرض
مثل (المعادن – الآثار – الكنوز)

What are the technological tools?

Global positioning system **GPS**:

used to find **places** and **locations** using satellite.



Magnetometer

to measure a magnetic field. it can find **metals** (minerals) underground .



Ground penetrating radar GPR

It uses radar to find **objects buried** underground.



Rover C4

- It is developed to detect **metals** .
- It is primary to search for treasures and metals buried under the ground such as **gold**
- It also a 3D ground scanner .
- It can create 3D image of the scanned area .
- This allows users to identify the locations and depths of potential targets .



ماهى الأدوات التكنولوجية الحديثة ؟

مقياس المغناطيسية : جهاز يستخدم لقياس المجال المغناطيسي ثم البحث عن المعادن فى باطن الأرض

الرادار المخترق للأرض GPR : طريقة يستخدم فيها الرادار للبحث عن الأجسام المدفونة تحت الأرض

نظام تحديد المواقع العالمى GPS : طريقة تستخدم لتحديد الأماكن والمواقع وذلك من خلال الاتصال بالأقمار

الصناعية

جهاز Rover C4 :

- تم تطويره للكشف عن المعادن
- يستخدم بشكل أساسي للبحث عن الكنوز والمعادن المدفونة تحت الأرض مثل الذهب
- يمكنه إنشاء صور ثلاثية الأبعاد للمنطقة الممسوحة
- يتيح للمستخدمين تحديد مواقع الأهداف المحتملة وعمقها

Exercises

1 Choose the correct answer:

1- is a 3D ground scanner used to detect metals.

- a. GPS
- b. GPR
- c. Rover C4

2-The.....is one of the archaeological tools that locates things above the ground.

- a. magnetometer
- b. satellite
- c. ground penetrating radar

3- A GPS receiver in your phone is connected to to determine locations.

- a. spacecrafts
- b. rockets
- C. satellites



4-The..... enables us to identify objects buried underground.

- a. GPR
- b. GPS
- c. GPA

5- Exploration tools detect underground .

- a. Metals
- b. Treasures
- c. A,B

6- Archaeologists use a ground penetrating radar to

- a. locates objects above the ground
- b. explores objects under the ground
- c. determines the direction of any location

7-If your friend sent you a WhatsApp message containing his address, this means that he uses the

- a. ground penetrating radar
- b. global positioning system (GPS)
- C. magnetometer.

8- Rover C4 can identify both location and

- a. Depth
- b. Time.
- c. Color.

9-The..... is used to locate metallic bridges underground.

- a. magnetometer
- b. drone
- c. GPR

10- The Rover C4 is a scanner

- a.2D
- b. 3D
- C. 5D



2 Write the scientific term:

- 1-A tool that enables us to know the location of any place we want to visit. (.....)
- 2- A tool that enables us to identify buried objects underground (.....)
- 3- A tool that enables us to identify minerals underground (.....)
- 4- It is developed to detect metals . (.....)

3- Put (✓) or (X):

- 1-The Rover C4 device used to create 2D image of scanned areas ()
- 2-Tourists use GPS, while archaeologists can use GPS and GPR. ()
- 3-The technological tools help tourists decide where to dig. ()
- 4-The Global Positioning System (GPS) is used to locate things underground. ()
- 5- The magnetometer is used to determine directions via satellites. ()
- 6-Satellites are used underground ()
- 7-Scientists use a ground penetrating radar to find objects above the ground. ()
- 8-GPS is used to find any place you want to visit, and it is connected to satellites ()
- 9-GPR is used to discover minerals underground before digging. ()
- 10- The taxi driver relies on the GPS device.

Column (A)	Column (B)
1 Magnetometer	a. 3D ground scanner that creates 3D images of the scanned area.
2 GPS	b. enables us to discover minerals underground.
3 GPR	c. enables us to know the location of any place we want to visit.
4 Rover C4	d. enables us to discover objects buried underground.

Hassan ELMELIGY



Lesson 2 (components of computer systems)

The computer :

- It is an electronic device used for **processing** data
- Computers can **store**, **restore** and **process** information .

جهاز الكمبيوتر : جهاز إلكتروني يقوم باستقبال البيانات ويحولها إلى معلومات بعد معالجتها ولديه القدرة على تخزين واسترجاع البيانات (Tablets - Laptop - PC)

Computer devices come in different **size** and **shapes**

- وتختلف أنواع الكمبيوتر من حيث الحجم والشكل

من أشكال جهاز الكمبيوتر :

Touchscreen devices - ٤



Tablets - ٣



Laptop - ٢



PC . ١



computer tasks:

كتابة المقالات والكتب	Writing articles and documents
ارسال البريد الإلكتروني	send email online
تصفح الإنترنت	browse the Internet
الألعاب	Play games
إنشاء العروض التقديمية	Create presentations (PowerPoint)
إنشاء مقاطع الفيديو	Create videos
إنشاء جداول البيانات	Create spreadsheet (Excel)
تخزين المعلومات	Store information

Computer Components :

Input Devices – CPU – Output Devices

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Function	output device	Function	input device
To show what you and the computer are doing	screen	To select and move things easily using it	mouse
It allow blind people to use the computer	Braille terminal	To type letters and numbers	keyboard
To hear others (output sound)	Speaker	To allow others to hear you and input sound and music	microphone
It allows non-verbal people to speak . the device can change text to speech	Speech synthesizer	To allow others to see you, input image and video	Camera
It output text or images from your computer on a paper	Printer	Allow the user to move things on computer	Touch Screen

Note: Touch Screen It is an input and output device at the same time

ملحوظة : شاشة اللمس **Touch Screen** تعتبر وحدة ادخال وإخراج في نفس الوقت

Exercises**1-Choose the correct answer:**

1 The computer is an electronic device that is used for online

- a. processing data
- b. writing documents
- c. sending emails

2-The Computer devices come in different

- a. size
- b. shape
- c. a,b

3- The..... is responsible for entering the data into your computer.

- a. CPU
- b. keyboard
- c. printer

4- The..... is used to print papers .

- a. display screen
- b. scanner
- c. printer

5- One of the devices that a word processing software needs to write is

- a. speaker
- b. mouse
- c. keyboard

6- The..... is a device that allows non-verbal person to communicate.

- A. microphone
- b. speech synthesizer
- c. speaker

7-enables you to take audio clips out of the computer

- a. The mouse
- b. The speaker
- c. The screen zoom software

8- The..... is one of the input devices of the computer hardware components.

- a. speaker
- b. printer
- C. scanner

9-All the following are from input devices of the computer components, except the.....

- a. screen
- b. microphone
- c. keyboard

10-.....are input devices of the computer hardware.

- a. Keyboard, mouse and speaker
- b. Camera, mouse and microphone
- c. Touch screen, speaker and printer

11-The screen is considered an..... device, while the touch screen is considered an..... device

- a. output-output.
- b. output - input
- c. input – input

12-is used to select, insert or drag a file on the computer.

- a. mouse
- b. printer
- C. Scanner

13- Theallows you to enter a sound to your computer.

- a. speech synthesizer
- b. speaker
- c. microphone



14-The..... is used to print texts and images on paper.

- A. screen
- b. scanner
- c. printer

15-Theis used to output texts and images .

- a. screen
- b. mic
- c. mouse

2- Put (✓)or (X):

- 1- Input devices in computers work on processing data. ()
- 2-Non-verbal people use speech synthesizers to use the computer. ()
- 3-The mouse is used to print images from the computer on paper. ()
- 4- The keyboard is a device that is used to input data. ()
- 5-We use printer to transfer texts and images from paper to our computer. ()
- 6-A laptop is bigger than a personal computer. ()
- 7- The personal computer converts information into data. ()
- 8- Braille terminals and speech synthesizers help people of determination to use computers. ()
- 9-You are the main component of using a computer. ()
- 10- The microphone is very important to hear audio or video. ()

3 Complete the following sentences with the suitable words between brackets:

(mouse - screen - speaker - camera - keyboard - microphone)

- 1- A..... enables you to enter your photo at the present.
- 2- A..... enables you to enter the sound into the computer.
- 3- A..... enables you to write letters and numbers.
- 4- A..... displays information (texts, photos & videos).



5- A..... is used to select and move things.

6- A..... is used to output audio data.

4 Cross out the odd word:

1-Keyboard - Printer - Camera – mouse (.....)

2-printer- Speaker - Microphone – Screen (.....)

3-Speech synthesizer - mouse– Speaker (.....)

5 Classify these words into input or output devices:

(Speech synthesizer - Touch screen - Speaker - Camera - Keyboard - Printer)

Input Devices	Output Devices
.....	
.....	

6- Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
Hardware	Function
1 Keyboards	a. output audio data
2 Speakers	b. view visual data as images.
3 Screens	c. output texts and images.
4 Printers	d. input letters and numbers.

Lesson 3 (Software and Operating Systems)

Hardware	Software
Input devices	Operating system
Output devices	applications
CPU	

Software :

They are programs and applications that helps the user to perform any task And they include:

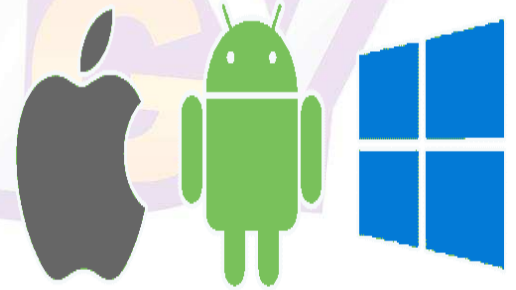
- 1-Operating system.
- 2-Programs (applications) .



هي عبارة عن برامج وتطبيقات تساعد المستخدم على أداء مهمة معينة وتشمل نظام التشغيل والبرامج

The operating system

- It is a program enables you to use your computer.
- The operating system sends commands to CPU
- There must be of the operating system software on the computer such as:



(Windows) for computers – (Android) for cell phone

نظام التشغيل : هو برنامج يقوم بتشغيل جهاز الكمبيوتر وتوظيفه لأداء مهام مختلفة ويقوم بإرسال الأوامر للمعالج

- لابد من وجود برنامج نظام التشغيل على جهاز الكمبيوتر مثل نظام Windows – Android

The Most important Applications :

PowerPoint : It helps us to design a **presentation**



Word: It helps us to write **reports** or **documents**



Google Chrome A program used to **browse** any website online



Excel: It helps us to design **tables** and **graphs**.



١. برنامج العروض التقديمية **PowerPoint** : برنامج يساعد على عرض النصوص والمعلومات بصورة

جذابة وشيقة مثل درس تعليمي مضاف إليه صور متحركة وأصوات وتأثيرات

٢. برنامج معالج الكلمات **Word** : يستخدم للكتابة على الكمبيوتر وتنسيق النصوص مع إضافة الصور

٣. برنامج متصفح الانترنت **Google Chrome** : برنامج يستخدم لتصفح الإنترنت والبحث في المواقع

٤. برنامج الجداول الحسابية **Excel** : يستخدم لعمل رسوم بيانية

What is a processor or central processing unit(CPU) :

Central Processing Unit (CPU) is like the brain in the human body and it processes data and converts it to useful information

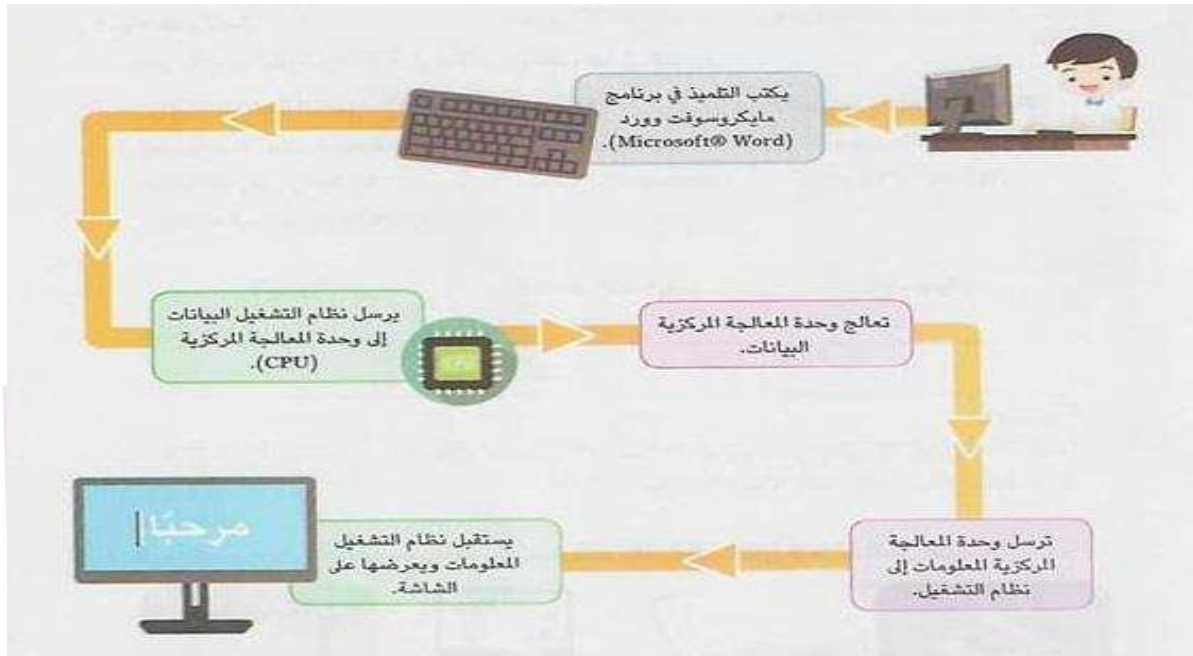


ماهو المعالج أو وحدة المعالجة المركزية CPU :

الجزء المسئول عن معالجة البيانات والتحكم في ادخال ومعالجة وإخراج البيانات ويشبه المخ في جسم الإنسان

The diagram shows how data is processed in Microsoft Word

يظهر الرسم التخطيطي كيفية معالجة البيانات (ماذا يحدث داخل الكمبيوتر بعد ادخال البيانات)



- 1- A student writes in M.S word
- 2- The operating system sends data to the CPU
- 3- The CPU processes the data
- 4- The CPU sends information to the operating system
- 5- The operating system receives the information and shows it on the screen.

عند كتابة أى أمر على جهاز الكمبيوتر

- ١ - يقوم نظام التشغيل بإرسال أوامر إلى وحدة المعالجة المركزية لتنفيذ هذا الأمر
- ٢ - ثم تقوم وحدة المعالجة المركزية بتوزيع الأوامر لكل وحدة لتنفيذها

Exercises**1 Choose the correct answer:**

1-.....is considered software for the personal computer.

- a. Keyboard
- b. Windows
- c. Screen

2-.....is considered of the hardware components of a computer.

- A.CPU
- c. Android
- b. Browser

3-.....is considered the door to the internet that enables you to search for any information.

- a. PowerPoint
- b. Google Chrome
- c. Microsoft Word

4-.....is a great tool that enables you to create your CV.

- a. PowerPoint
- b. Google Chrome
- c. Microsoft Word

5-.....can be an effective tool to present material in the classroom and encourage student learning.

- a. Excel
- b. PowerPoint
- c. Google Chrome

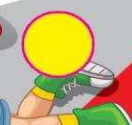
6-The function of the central processing unit (CPU) is to

- a. change information to useful data
- b. change bad information to useful information
- c. change data to useful information

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7- sends data to the CPU then receives it in a form of information

- a. Windows
- b. Browser
- c. Keyboard

8-All the following are from the operating systems that enable you to use computers, except.....

- a. Windows
- b. email
- c. Android

2 Write the scientific term:

- 1-It sends commands to the central processing unit (CPU). (.....)
- 2-It processes data and converts it to useful information. (.....)
- 3-It is considered the main tool for accessing websites. (.....)
- 4-An application that allows you to design business documents. (.....)
- 5-An application that allows you to present information and videos. (.....)

3 Put (✓)or (X):

- 1- The central processing unit (CPU) is a type of software. ()
- 2- Word processing software is a type of device. ()
- 3- The operating system is not necessary for dealing with a computer. ()
- 4- Microsoft PowerPoint helps you present information in creative ways. ()
- 5- The software helps in controlling processing data so the user can reach information. ()
- 6- The CPU sends commands to the operating system to translate them ()
- 7- The operating system is considered a software component, while the CPU is considered a hardware component. ()
- 8- Google Chrome enables you to download any file from any website offline. ()
- 9- Screen and keyboard help you to operate your personal computer. ()
- 10- Android is one of the most famous operating systems. ()

4 Classify these words into the following table:

(Word - Speech synthesizer - Google chrome - Touch screen - Windows - Speaker - Camera - Keyboard - Printer - PowerPoint - Android)

Input Devices	Output Devices	Operating System	Applications
.....			
.....			

Hardware	Software

5 Cross out the odd word:

- 1- Windows - CPU – Android (.....)
- 2- Keyboard - Google Chrome – Speaker (.....)
- 3- Screen - Microsoft Word- PowerPoint (.....)

6 Arrange the following stages:

- 1- The operating system sends the image data to the CPU. ()
- 2- The CPU converts data into information. ()
- 3- The student places an image in Microsoft PowerPoint. ()
- 4- It displays it on the screen. ()
- 5-It displays it on the screen. ()
- 6-The CPU is processing the image data. ()
- 7- The CPU sends information to the operating system. ()

Lesson 4 (Supporting People of Determination)

Assistive Technology It is a technology that helps **people of determination** in tasks that they find difficult to do

التكنولوجيا المساعدة : تساعد الأشخاص ذوي الهمم في أداء مهامهم اليومية

Screen magnification software: It is a program that **enlarges** everything on a computer screen such as text and image to help people with poor vision (**Visually Impaired**) to interact with the computer

برمجيات تكبير الشاشة : وهي برامج تقوم بتكبير الشاشة لتساعد الأشخاص الذين يعانون من ضعف البصر في التفاعل مع الكمبيوتر



Hearing aids : help people who have **trouble hearing**
And now it can be connected and linked to mobile phones

سماعات الأذن : وهي سماعات تساعد الأشخاص الذين يعانون من ضعف السمع
والآن من الممكن توصيلها وربطها بالهواتف المحمولة والأجهزة الذكية



Alternate communication software:

It helps people with **speech and language disabilities** to communicate with others.
Some computer programs can change **text** to **speech** and **speech** to **text**

برمجيات التواصل البديلة : وهي برامج تساعد الأشخاص ذوي الهمم الذين يعانون من صعوبات التواصل اللغوي والشفهي مع الآخرين و تقوم بتحويل النص المكتوب إلى مسموع والمسموع إلى مكتوب

Sporting tools :**Hand bike** that has 3 wheels and is powered by hands

الدراجة الهوائية ثلاثية العجلات لمن يعانون من فقدان أحد أطرافهم (القدم) والتي يمكن تشغيلها باليد

footballs that make a noise : for (**visually impaired**)

ومثل طابات كرة القدم التي تصدر صوتا

**Para climbing tools** : they allow climbers with **limb differences** to climb mountains.

أدوات التسلق تتيح للمتسلقين ممن فقدوا أطرافهم أن يتسلقوا الجبال

prosthetic limbs: A device that replaces the missing limb in the human body (arm - foot)

الأطراف الصناعية : جهاز يعوض عن الطرف المفقود في جسم الإنسان (ذراع - قدم)

**Braille method:**It helps **blind** people to read with touch by converting letters into raised symbols.

طريقة برايل : هي عبارة عن نظام للكتابة يمكن المكفوفين من الكتابة من خلال كتابة الحروف عن طريق رموز بارزة على الورق كما تسمح لهم أيضا بالقراءة من خلال اللمس

Cell phone with large buttons :It can be useful for **visually impaired** people**Motorized wheelchairs :**It can be useful for people with **mobility impairments**.**Stephen Hawking**: he was a physics scientist used a motorized wheelchair to move and speech synthesizer that helps him to communicate .

عالم الفيزياء ستيفن هوكينج: حيث قام باستخدام الكرسي الألى للتحرك وكان مزودا بجهاز مركب الكلمات يساعده في التحدث



Exercises

1 Choose the correct answer:

1-Albert Lin is a/an.....

- a. doctor
- b. architect
- c. archaeologist

2-.....had a robotic wheelchair that enabled him to move.

- a. Albert Lin
- b. Stephen Hawking
- c. Anika Ullah

3-Prosthetic legs and wheelchairs help people with.....

- a. hearing troubles
- b. movement disabilities
- c. poor vision

4-Screen magnification software is very important for

- a. blind people
- b. deaf people
- c. visually impaired people

5- Alternative communication software helps people withdisabilities.

- a. speech
- b. movement
- c. seeing

6-.....is a way to convert letters into raised symbols that can be read by touch.

- a. Smartphone
- b. Touch screen
- c. Braille method

7- People who have hearing troubles can use to interact with a computer.

- a. speaker
- b. hearing aids
- C . Synthesizer

8-The.....can change text to audio and vice versa.

- a. speaker
- b. microphone
- c. alternative communication software

9- A football that makes noise is useful for

- a. people with hearing troubles
- b. people with movement disabilities
- C. visually impaired people

10- Which of the following is useless for visually impaired people?

- a. Motorized wheelchair
- b. Cell phone with large button
- c. Screen magnification software

11- Screen magnification software enables

- a. showing information
- b. hearing information
- C. printing papers

12-help people with limb difference to go about their daily lives.

- a. Hearing aids
- b. Prosthetic legs
- C. Braille terminal

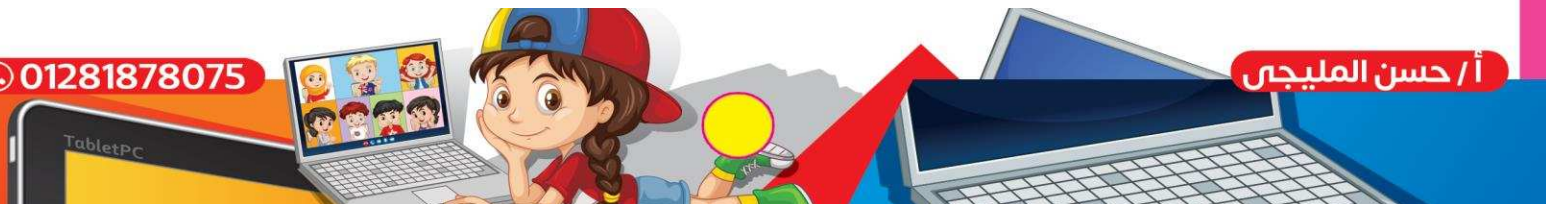
2 Write the scientific term:

1-The kind of technology that helps people of determination. (.....)

2-A tool that helps people who have trouble hearing to hear. (.....)

3-A tool that helps blind people to read. (.....)

4-A tool on the computer that enables visually impaired people to see (.....)22



5-A tool that helps people who lost one of their limbs. (.....)

6-It helps people with speech and language disabilities to communicate (.....)

3 Who might find these assistive technological tools more useful

1- Sport balls that make noise. (.....)

2- Cell phones with large buttons. (.....)

3-Medical hearing aids. (.....)

4- Screen magnification software. (.....)

5-Motorized wheelchair. (.....)

4 Put (✓) or (X):

1- Assistive technology is technology that helps people of determination go about their daily lives. ()

2- Albert Lin uses a prosthetic leg that enables him to talk and communicate. ()

3- Stephen Hawking used a robotic wheelchair to move which was equipped with a system that enabled him to talk. ()

4- Screen magnification software helps people with hearing trouble.()

5- Braille transforms letters into raised symbols that can be read by touching. ()

6- Medical hearing aids include applications that allow users to adjust then from their mobile phone. ()

7- Alternative communication software allows visually impaired people to interact with a computer. ()

8-Some computer programs can change text to speech and vice versa. ()

9-A bike with three wheels operated by hand can help a person with limb difference to move. ()

10-Our deaf sisters can use technological tools, such as speech synthesizers. ()



5 Complete the following sentences:

- 1-People of determination use different kinds of technology
- 2-Albert Lin has a but that doesn't stop him, so he usesthat enables him to move and explore new places.
- 3-Stephen Hawking used a to move which was equipped with a system that enabled him to
- 4-allows non-speaking people to speak and communicate with others
- 5- People who have poor vision can use to read
- 6-players can use a ball that makes noise.
- 7-has 3 wheels and is powered by your hands.

6 Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
People of determination	Can use
1- Blind person	a. Screen magnification software
2- People with hearing disabilities	b. Prosthetic device
3- Visually impaired person	c. Alternative communication
4- Person with language disabilities	software
5- Person with a limb difference	d. Medical hearing aid
	e. Braille metho

Lesson 5 (Common ICT problems and solutions)

What are the problems that a technology user may face at school or at home?

How to solve it	the problem
We restart the computer if the problem is not solved We update the software if the problem is not solved We uninstall and reinstall the application	An App won't open
We make sure that the mouse cable is connected to the right place on the motherboard and then restart the device. The problem is not solved We replace the mouse with another	The mouse curser is not working
We make sure that the keyboard cable is connected to the appropriate place on the motherboard and then restart the device did not solve the problem We replace the keyboard with another	The keyboard is not working
We press buttons on the keyboard Ctrl Alt Del Ctrl+ Alt +Del If the problem is not resolved, we restart the device	your screen not working Freeze/stopped displaying data
To search in general through the Search Box next to the start button If you are looking for a Microsoft word file look in the Documents folder If you are looking for a photo, search in the Pictures folder If you are looking for a file you downloaded from the Internet, search in the Downloads folder	You can't find a file

In the event that you try to solve any problem, but it is not solved, ask for help from your teacher or a member of your family

ماهي المشكلات التي قد تواجه مستخدم التكنولوجيا في المدرسة أو المنزل ؟؟

المشكلة	كيفية حلها ومواجهتها
عدم التمكن من فتح البرنامج أو التطبيق	نقوم بإعادة تشغيل الكمبيوتر في حالة لم تحل المشكلة نقوم بتحديث البرنامج في حالة لم تحل المشكلة نقوم بمسح البرنامج وثبितه مرة أخرى
مؤشر فأرة التحكم لا يعمل	نقوم بالتأكد من توصيل كابل الفأرة بالمكان المناسب في اللوحة الأم ثم نعيد تشغيل الجهاز لم تحل المشكلة نقوم باستبدال الفأرة بأخرى
لوحة المفاتيح لا تعمل	نقوم بالتأكد من توصيل كابل لوحة المفاتيح بالمكان المناسب في اللوحة الأم ثم نعيد تشغيل الجهاز لم تحل المشكلة نقوم باستبدال لوحة المفاتيح بأخرى
شاشة الكمبيوتر لا تعمل تجمدت / توقفت عن عرض البيانات	نقوم بالضغط على أزرار من لوحة المفاتيح (Ctrl) و (Alt) و (Del) في حالة لم تحل المشكلة نقوم بإعادة تشغيل الجهاز
عدم إيجاد ملف معين	للبحث عامة من خلال صندوق البحث Search Box الموجود أسفل الشاشة بجانب شعار windows في حالة بحثك عن ملف نصي مكتوب ببرنامج Word ابحث في مجلد المستندات Documents في حالة بحثك عن صورة ابحث في مجلد الصور Pictures في حالة بحثك عن ملف قمت بتنزيله من الانترنت ابحث في مجلد التنزيلات Downloads

في حالة محاولة حل أي مشكلة ولكن لم تحل اطلب المساعدة من معلمك أو أحد أفراد أسرتك (تعتبر المحاولة الأخيرة) وإعادة تشغيل الجهاز يساعد في حل معظم المشاكل

Exercises**1 Choose the correct answer:**

1- If you want to find a file in your PC, you should

- a. restarts the device
- b. press on Del + Alt + Ctrl
- C. Use the Search box

2- The command responsible for closing all the applications on personal computers

- a. Del+Alt+Ctrl
- b. Alt+Del+Tab
- c. Del+Tab+Shift

3- When there's a problem opening one of the apps on your computer, you might need to

- a. restart your device
- b. replace the mouse
- c. replace the keyboard

4- It is preferable after repairing or reconnecting the mouse to

- a. connect the power charger to the device
- b. check electrical connections
- C. restart the device

5- You can use..... to write school reports and homework.

- a. MS PowerPoint
- b. MS Word
- c. MS Excel

6- The following options are possible to solve a keyboard malfunction, except

- a. replacing the keyboard
- b. checking the keyboard connection
- c. pressing F5 button



7-When you are unable to solve a problem on your computer, you must

- delete some files from the computer
- leave your computer for a while
- ask your teacher or family to help you

2 Complete the following sentences using the suitable words between brackets:

(find a file - screen freezes - app won't open - pointer doesn't work)

- Press and hold the "Ctrl", "Alt" and "Del" buttons when.....
- Uninstall and reinstall the app when the.....
- Do a search using the Search box next to the Start button to.....
- Check the mouse connection to the motherboard when the.....

3 Put (✓) or (X):

- It is better to restart your computer after checking the keyboard connection. ()
- If the app still won't open, check that your software is up to date. ()
- Removing the Word program from your device helps solve most problems. ()
- If you can't find a file, you should restart your computer. ()
- Press Del + Alt + Ctrl if the mouse is not activated. ()
- Using the Search box helps you find any file on your PC. ()
- The first thing you should do when you have a problem with your computer is ask to your teacher for help. ()

5 Decide what the problem is, based on the solution provided:

- Press and hold the "Ctrl", "Alt", and "Del" buttons. (.....)
- Do a search using the Search box next to the Start button. (.....)
- Restart your computer and try opening it again. (.....)
- Uninstall and reinstall the app. (.....)



Lesson 6 (collection, analyzing and graphing data)

How can digital tools help you organize information?

كيف تساعدك الأدوات التكنولوجية من تنظيم معلوماتك ؟

Scientists and archaeologists can solve problems by (collecting - analyzing - graphing) data

لابد من القيام بثلاث عمليات وهى (جمع - تحليل - عرض) البيانات

Collecting :

You can collect data from some sources such as:

- Books and articles (digital or print)
- Records or reports
- surveys and experiments



Make sure that the information you are collecting is **accurate** and from **reliable** sources

جمع البيانات :

يتم جمع البيانات من خلال العديد من المصادر مثل :

- الكتب و المقالات (الرقمية أو الورقية)
- السجلات أو التقارير
- استطلاع الرأي و التجارب

تأكد من أن المعلومات التى تقوم بجمعها موثوقة ومن مصادر أمانة



Analyze:

- 1-You must **review** your findings
- 2-You must **interpret** what those findings mean.
- 3-You may have a lot of data, so look for **trends** in the information



تحليل البيانات :

عندما تقوم بتحليل البيانات التى جمعتها

- قم بمراجعة تلك البيانات

- قم بتفسير تلك البيانات

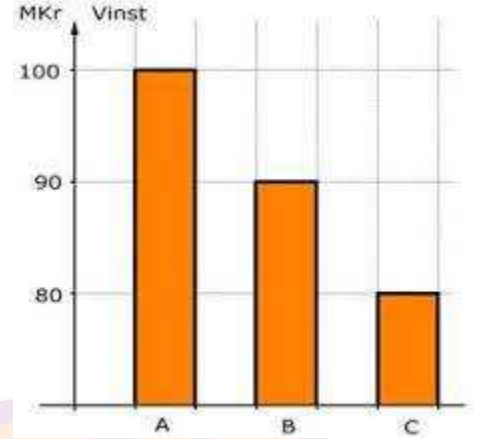
- قد يكون لديك الكثير من البيانات لا ابحث عن الأنماط المتكررة فى المعلومات

Graph:

Once you have **analyzed** the information you have collected , you are ready to **graph** the information.

عرض البيانات :

بعد مرحلة جمع وتحليل البيانات يتم عرضها في شكل رسم بياني لتسهيل قراءتها



(A common graph is a **bar graph**) we **present** and **compare** the information. You can draw it on paper or on a computer using Excel

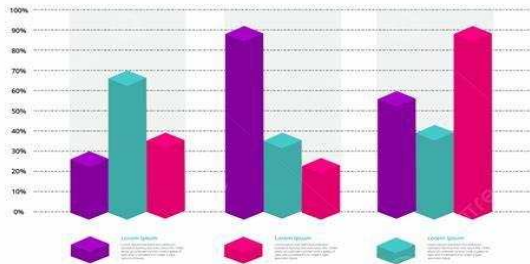
الرسم البياني : بعد جمع البيانات وتحليلها نقوم بالتعبير عنها بواسطة (الرسم البياني العمودي) ونقوم بعرض المعلومات والمقارنة بينها ومن الممكن رسمه على ورق أو على الكمبيوتر من خلال برنامج الجداول الحسابية Excel

A bar Graph (the most used):

It is easy to read the data
explains a large amount of information clearly
It clearly compares different categories of information

مزايا الرسم البياني العمودي (الأكثر استخداما وانتشارا) :

- يسهل من قراءة البيانات
- يلخص ويفسر كم كبير من المعلومات بصورة واضحة
- يسهل عملية المقارنة بين البيانات



Exercises**1 Choose the correct answer:**

1- The first step of solving any problem is..... the data.

- a. graphing
- b. collecting
- C. analyzing

2- Scientists and archaeologists can..... to solve problems.

- a. search
- b. write
- c. read

3- Inside a science lab, we do a lot of..... with our teacher to collect data.

- a. surveys
- b. interviews
- c. experiments

4- The students can do..... inside the class to collect data about their favorite technology

- a. surveys
- b. interviews
- c. experiments

5- You can use..... whether they are printed or digital to collect Data.

- a. surveys
- b. books
- C. interviews

6- The best way to collect information is getting it from

- a. Facebook
- b. surveys
- c. WhatsApp



7-The best way to interpret a lot of data is to look for

- a. records
- b. surveys
- c. trends

8-.....is the best software that can be used to analyze data

- a. MS Word
- b. MS Excel
- C. MS PowerPoint

9- When you analyze the data you've collected, you review your

- b. information
- c. findings
- a. data

10- Once you have analyzed the information you have collected, you're ready to graph the

- a. data
- b. information
- c. findings

11- Before you show your results on charts, you should

- a. share it online with others
- b. analyze them
- C. remove them

12-.....graph is the most common graph to present information.

- a. Bar
- b. Pie
- C. Line

2 Put (✓) or (X):

1- When preparing a research, you must ensure that the information you have collected is correct. ()

2- Surveys and experiments are the most important sources of data collection. .()



- 3- To reach accurate search results, you must use social media sites. ()
- 4- You can follow the steps of collecting, analyzing, and expressing data in graphs to create a survey for your classmates about their favorite sports. ()
- 5- You can't make graphs on paper, but you can create them with Excel only. ()
- 6- Software applications are used to collect the data and are not used to analyze and express them into a graph. ()
- 7- The data is analyzed in order to organize it in a graph. ()

3 Complete the following sentences:

- 1- Scientists and archaeologists can solve problems by,
.....and..... data.
- 2- You can collect data from some sources, such as and.....
- 3- Always make sure that the information you are collecting is
and from..... Sources
- 4- We can do in a science lab to collect reliable data.
- 5- During analyzing the you collected, you must review your
You may have a lot of data, so look for in the information
- 6-graph is the most common graph that compare and.....
- 7- You can draw a chart after data on a or using program.

4 Complete the following sentences with the suitable words between brackets:

(Excel - paper - Analyzing - Bar - data collection)

- 1-graph is the most common graph to compare different information
- 2-is one of the most popular applications for designing graphs.
- 3- You can draw graphs on a.....
- 4- During..... you must ensure that the information is accurate.
- odata is very important before drawing a chart.



Revision on Theme 1

1 Choose the correct answer:

1- You want to see if there are any old coins buried underground, you will use

- a. GPS
- b. GPR
- C. magnetometer

2- You want to find out if there are any old buildings under the ground, you will use

- a. GPS
- b. GPR
- C. magnetometer

3-You receive a message from a friend who is lost and you want to try to find him, you will use

- a. GPS
- b. GPR
- c. drones

4-.....allow non-speaking people to speak.

- a. Speakers
- b. Smart microphones
- C. Speech synthesizers

5- The processes the data and sends information to the operating system.

- a. keyboard
- b. CPU
- C. software

6- The operating system receives..... and shows it on the screen.

- a. information
- b. data
- c. orders



7- Press and hold the "Ctrl", "Alt" and "Del" buttons when the.....

- a. screen freezes
- b. app won't open
- C. pointer won't work

8- You can use..... to write school reports and homework.

- a. MS Word
- b. MS Excel
- C. MS PowerPoint

9-is a digital tool that can be used to organize data

- a. MS Word
- b. MS Excel
- C. MS PowerPoint

10- Students do a/an..... inside the class to collect data about their favorite technology tool.

- a. experiment
- b. interview
- C. survey.

11- The most common graph is..... graph

- a. column
- b. bar
- c. line

2 Put (✓) or (X):

- 1-Tourists can use GPS to know the location of historical museums. ()
- 2-The global positioning system (GPS) is connected to satellites. ()
- 3- The keyboard is a device used to output data. ()
- 4- You are the main component of using a computer. ()



- 5- The central processing unit (CPU) is a type of software. .()
- 6- Albert Lin uses a prosthetic leg that enables him to talk and communicate. .()
- 7- Braille transforms letters into raised symbols and can be read by touching. .()
- 8- Press "Del" + "Alt" and "Ctrl" if the mouse is not activated. .()

3 Classify the following words in the tables:

(Screen - Camera - Braille Terminal - Scanner - Microphone - Keyboard -
Speaker - Mouse - Printer - Touch screen - Speech Synthesizer)

Input Devices	Output Devices

(CPU - Google Chrome Browser - PowerPoint -
Screen - Keyboard - Windows - Microsoft Word)

Hardware	Operating System	Application Software

Lesson1(Online dangers and how to be safe)

Unsafe Websites:

They are sites to steal your personal data and information

(Your name - your email - your password - your address....)

- Be careful when clicking on links, and don't click on links that you are unsafe of

المواقع الإلكترونية غير الآمنة:

وهي المواقع التي تهدف إلى سرقة بياناتك الشخصية ومعلوماتك أو بهدف انتحال الشخصية مثل اسمك - بريدك الإلكتروني - كلمة المرور - عنوانك يجب علينا عدم الضغط على الروابط التي لا نعرف محتواها

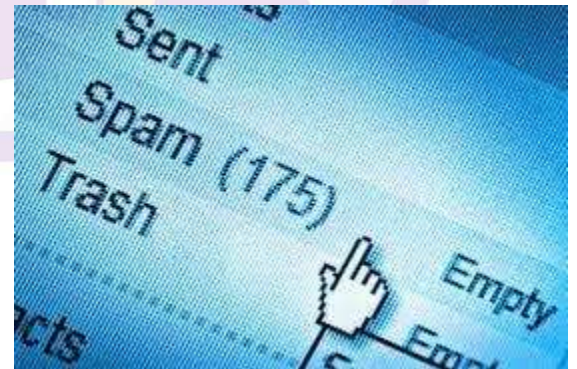


spam:

mail includes unwanted messages to advertise products or gather more information from you. The messages may include viruses, unfamiliar address, unknown Links or messages in ALL CAPITAL LETTERS might be spam

الرسائل المزعجة:

وهي الرسائل غير المرغوب فيها والتي تهدف للإعلان عن منتج ما أو للحصول على معلومات منك وتصلك من عنوان بريد الكتروني غير معروف وقد تحتوي على فيروسات أو مواد غير آمنة وروابط غير معروفة وتكتب بحروف كبيرة .



What are the safety measures that must be followed while using the Internet?

Be sure you know who you are chatting with.

block anyone who is unkind to cannot see your posts or contact you



Do not click on links that you do not know their content, if you clicked leave the site immediately and tell your teacher or a member of your family for help

Leave any site that contains unethical or unsafe

Do not share your personal data or information with anyone (photos - videos - your account data and password)

Think carefully before downloading files from the Internet because file have viruses

ماهى إجراءات الأمان التي يجب اتباعها أثناء استخدام الأنترنت ؟

- التأكد من هوية الشخص الذى تجرى معه محادثة عبر الإنترنت
- حجب (block) أي شخص غير لطيف ويتعامل بصورة سيئة حتى لا يتمكن هذا الشخص من رؤية منشوراتك أو التواصل معك
- عدم الضغط على الروابط التي لاتعرف محتواها وفى حالة الضغط بالفعل غادر الموقع فوراً وأخبر معلمك أو أحد أفراد أسرتك للمساعدة
- مغادرة أي موقع يحتوى على مشاهد غير أخلاقية أو غير آمنة
- لا تشارك أحد ببياناتك الشخصية أو معلوماتك الخاصة (الصور - الفيديو - بيانات حسابك وكلمة المرور)
- فكر جيداً قبل تنزيل الملفات من الأنترنت خوفاً من وجود فيروس

Virus : damage your computer or track your information .



الفيروس : برنامج قد يدمر جهازك أو يتتبع معلوماتك الشخصية

Downloading files:

When you are using the internet you might want to download a file so you can look at it later, without being connected to the internet



تنزيل الملفات download :

وهو تحميل ملف من الإنترنت إلى جهاز الكمبيوتر الخاص بك لفتحه دون الحاجة لتصفح الإنترنت مرة أخرى

Exercises**1 Choose the correct answer:**

1-Online communication requires all the following devices, except.....

- a. computers
- b. TV
- c. tablets

2-People may use..... to communicate together.

- a. spam messages
- b. instant messages
- c. personal information

3- If someone makes you feel unsafe, you can..... that person.

- a. advise
- b. avoid
- c. block

4- Your..... includes your name, address and your date of birth.

- a. spam message
- b. personal information
- c. instant message

5- If an email includes..... this message might be spam or include viruses

- a. familiar address
- b. capital letters
- c. known links

6- Messages calling for unreal advertisements in your email are

- a. spam messages
- b. personal information
- c. downloaded files

7- If a friend sends you a strange picture that scares you, what should you do?

- a. Copy the picture to your computer.



b. Tell your parents about this picture.

c. Send the picture to all your friends.

8- If you accidentally view an inappropriate site, what should you do?

a. Stop using technology.

c. Leave the site and tell your parents.

b. Keep the site opened

9-If you get a message from a stranger on your social media account that includes a video to watch, what should you do?

a. Download the video to watch later.

b. Delete and ignore the message.

c. Send him a friend request.

10- Your friend sent you a message on a social networking site, you must.....

a. close the device

b. delete the message

c. check his identity

2 Put (✓)or (X):

1-When someone is blocked, they can see your posts. ()

2-It's no harm to get your friend's information without his permission. ()

3- Clicking on an unknown link may download viruses to your device. ()

4-Blocking is considered one of the ways to communicate with your colleagues or friends on the internet. ()

5-If you receive an unknown message in all capital letters, it might be a spam. ()

6- You must keep your personal data private to avoid viruses or spam messages. ()

7- You can download files on your device without internet service. ()

8- You can look at any file you have downloaded before without the need for the internet. ()



3 Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1 Spam messages	a. allow you to communicate online.
2 Personal information	b. prevents this person from seeing your posts.
3 Instant messages	c. may include unwanted advertisement.
4 Blocking someone	d. may include your address or your name.

4 Complete the following sentences using the word in brackets:

(block - download - instant messages - personal information - spam)

1- An email from an unknown address that includes advertisements is likely to be.....

2- When you..... a file, you save it to your device.

3- If you..... someone, they will no longer be able to contact you or view your account.

4- Think carefully before you share your address or other online

5- You can use to communicate with friends.

Lesson 2 (Using ICT Tools in a healthy and ethical way)

Tag : when you tag someone, you **identity** that person in a post, photo or video .

وهى الإشارة إلى شخص وبالتالي تحديد هويته فى صورة أو منشور ويمكن لأى شخص الدخول إلى ملفه الشخصي



- Make sure to ask for their permission first.
- The tag provides a **link** to the person's profile.
- Anyone who has **access** to your account can see it.
- It's important to **credit a source** of information
- **Respect the law** when you are posting online or searching
- **Don't go on banned sites** (may publish inaccurate and harmful material)

- يجب أخذ موافقة الشخص قبل الإشارة إليه فى منشوراتك
- يجب أن تحرص على أن تكون المنشورات لائقة ولا تضر بأحد
- يجب عليك عند استخدامك لمعلومات لاتخصك (أن تذكر مصدر المعلومات) وتخبر الآخرين بأن هذه المعلومات خاصة بشخص آخر وملك له
- يجب أن تستشير معلمك أو أحد أفراد أسرتك قبل الدخول لموقع جديد
- يجب عليك احترام القانون



Positive and negative effects of ICT tools

Negatives	Positives
-You can get eye strain or headaches or became lazy from using your devices too long -Google is one of the most reliable sites for information (it does not always give correct information) -rely on some websites that may provide unreliable information	-You can read the news with just a click of the mouse. -Communicate with my friends and family members anytime and anywhere -Upload and download photos, videos and files to your PC -Helping people of determination

الأثار الإيجابية والسلبية لأدوات تكنولوجيا المعلومات والاتصالات

السلبيات	الإيجابيات
• قضاء الكثير من الوقت في استخدام التكنولوجيا يؤدي إلى الإرهاق والكسل واجهاد العين والصداع. • موقع جوجل من أكثر المواقع التي نعتمد عليها في الحصول على المعلومات (لايعطى دائما معلومات صحيحة) • الاعتماد على بعض المواقع التي قد تقدم معلومات غير موثوقة	• إمكانية الإطلاع على الأخبار بضغطه واحدة من خلال فأرة التحكم mouse • التواصل مع أصدقائي وأفراد أسرتي في أي وقت وأى مكان • تحميل وتنزيل الصور والفيديوهات والملفات على جهازك الشخصي • مساعدة الأشخاص ذوى الهمم

Exercises**1 Choose the correct answer:**

1-When you tag someone, the tag provides a.....to the person's profile

- a. request
- b. link
- c. message

2-Samira went to her friend's birthday party and took a lot of photos

What should she do?

- a. Share all photos on Facebook.
- b. Tag all her friends in a post.
- c. Get permission from her friends to share.

3.....is a software which you can use to create presentations.

- a. MS Word
- b. PowerPoint
- C. Windows

4- One of the ethical behaviors in using ICT tools is to a source.

- a. credit
- b. ignore
- C.edit

5-sites may publish inaccurate and harmful material.

- a. Scientific
- b.Trusted
- c. Banned

6-One of the ethical behaviors in using ICT tools is you can get

- a. headache
- b. updated news
- C. wrong answers



7- Spending a lot of time using technology makes you feel

- a. happy
b. lazy
c. active

2 Put (✓) or (X):

- 1- When a friend is tagged in your post, no one can see his account. ()
2- You must respect the privacy of people and ask them before posting. ()
3- Banned sites provide valuable scientific information. ()
4- You can communicate with friends and family anywhere. ()
5- Without the internet, you cannot see a video after downloading it. ()
6- All answers for any questions on Google™ are right and accurate. ()
7- You can get eye strain or headaches from using your devices for too long. ()
8- Before you post something, ask yourself: Is this post kind to others? ()

3 Classify these situations into positive or negative effects of ICT tools:

situations	Positive	Negative
1 Adam tags his friend in an old image without his permission		
2 Lara asks her friend to tag her in a picture before she posts it online.		
3 Sarah shares a valuable information without crediting the source.		
4 Ahmed works on his computer all day without any rest.		
5 Maged presents information via PowerPoint with its sources.		
6 Lina asks her teacher first before she goes on a new website		

Lesson 3 (How to search online)

we will learn how to use Internet browsers in a safely and smartly

من خلال هذا الدرس سنتعرف على كيفية استخدام متصفحات الإنترنت بطريقة آمنة وذكية

internet browser

It is a program which we can access the Internet to view web pages

like **Google Chrome / Firefox / Microsoft Edge**



Google Chrome



Google

متصفح الإنترنت

هو برنامج من خلاله نستطيع الدخول إلى الإنترنت لعرض صفحات الويب والتنقل بينها

Search Engine : It is one of the websites that provide search service on the Internet Such as **Google/ Bing**

محرك البحث : وهو أحد المواقع الذي يقدم خدمة البحث عبر شبكة الإنترنت

How to search safely

- Choose a browser that **warn** users before they enter an unsafe site or download a harmful app.
- Choose browsers have search engine set up **just for children** they show results that are age – appropriate and include a parental control app.
- Choose **child-friendly** websites that includes filters that help you avoid clicking on inappropriate videos.
- Use browser tools to not click on any **inappropriate** or **unsafe** links



كيفية البحث بطريقة أمنية

- لابد من اختيار متصفح يرسل تنبيهات ورسالة تحذيرية إذا وجد برنامج ضار أو فيروس أو عند محاولة الدخول إلى موقع غير آمن
- احرص دائما على تصفح المواقع المخصصة لعمرک (يوجد متصفحات بها محركات بحث خاصة بالأطفال) تحتوي على فلتر لعدم الضغط على الفيديوهات غير المناسبة
- استخدام أدوات المتصفح لعدم الضغط على أي روابط غير لائقة أو غير آمنة

How to search in a smart way

- Type **longer phrases** not just a couple of words for better results
- To **include** a word in search result , add a **(+)** sign **before** the word
- To **ignore/avoid** a word in search result , add a **(-)** sign **before** the word
- To search a **particular phrase**, put the phrase inside quotation marks " ". This will help arrow your search to the exact wording.
- You can search by **image** instead of writing text and words using camera button and add your image .

كيفية البحث بطريقة ذكية

- اكتب جملا طويلة بدلا من كلمة أو كلمتين للحصول على نتائج أفضل
- مثال حيوان الجاكوار وكذلك توجد سيارة ماركة الجاكوار عند البحث بكلمة "الجاكوار" سيقوم محرك البحث بإظهار معلومات عن الحيوان والسيارة فالأفضل نكتب " حيوان الجاكوار "
- استخدم علامة (+) لشمول بحثك الكلمات أو الحروف التي تريدها
- استخدم علامة (-) لعدم شمول بحثك الكلمات أو الحروف التي لا تريدها
- استخدم علامات التنصيص (" ") لخصر نتائج البحث أو إذا كنت تبحث عن جملة معينة
- من الممكن أن تبحث بالصور بدلا من كتابة النصوص والكلمات

Exercises

1 Choose the correct answer:**1-What will you do if you receive a warning message while searching online?**

- a. I will proceed to the site.
- b. I will tell my teacher.
- c. I will stop using the internet.

2-Downloading..... applications from the internet is a problem that may face you during searching the internet.

- b. safe
- a. useful
- c.Harmful

3- Child-friendly websites may include..... to avoid seeing inappropriate videos.

- a. antivirus
- b.personal data
- c. filters

4-help you get relevant results for your research.

- a. Short phrases
- b. Long phrases
- c. General words

5- If you are interested to know where jaguars live, typein the search engine.

- a. jaguar - habitat
- b. jaguar + habitat + car
- c. jaguar + animal + habitat

**6- The + sign before a word means you want the search engine to
this word during searching.**

- a. avoid
- b. include
- c. ignore



7- To search for summer fruits avoiding the peach, you must type
in the search engine.

- a. summer fruit + peaches
- b. summer fruit except peaches
- c. summer fruit - peaches

2 Put (✓) or (X):

- 1- You can proceed to the site if you receive a warning message from the browser. ()
- 2- Child-friendly websites include filters to avoid inappropriate videos. ()
- 3- If your keywords are too general, you will get accurate information. ()
- 4- You can use the image instead of words in your search engine. ()
- 5- Writing one word only is enough to get the best results while searching. ()

3 Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1 Results	a. if you would like the search engine to
2 Browser	avoid this word.
3 Search engine	b. an application that helps to access
4 Add the + sign	information online.
before word	c. if you are searching for a particular phrase.
5 Add the - sign before	d. if you need these words to be included in
word	your search.
6 Put the statement	e. is an application used to search on the
inside	internet.
	f. a list of results that are displayed based
	on a specific search

lesson 4 (Who can help you with online problems?)

Bullying is **repeated unkind behavior** towards someone. Online bullying can include mean posts, messages or texts. They may be shared with just you or with others.

التنمر : هو تصرف أحد الأشخاص بطريقة سيئة تجاه شخص آخر ومن الممكن أن تكون فى صورة منشورات أو رسائل سيئة أو بذيئة أو مؤذية ومن الممكن مشاركتها معك أو مع الآخرين



Identity theft

- Your identity or a family member's identity may get stolen online. uses your personal information (social media account – address – email – phone number)

They may access to your account and see your address,

-email, or phone number

سرقة الهوية : وهى سرقة بياناتك الشخصية واستخدامها استخدام خاطئ مثل حسابك الشخصي على (مواقع التواصل - عنوان مسكنك - بريدك الإلكتروني - رقم هاتفك)



How to face / avoid these problems

- Talk to your parents, family member, teacher or someone you trust
- Do not communicate with unknown persons (anyone you don't know)
- The general Department for Combating Internet Crimes in Egypt
- Block anyone who is unkind to cannot see your posts or contact you

كيفية مواجهة هذه المشكلات

- ابلاغ والديك أو أحد أفراد أسرته أو معلمك أو شخص تثق فيه
- عدم التواصل مع أشخاص مجهولين
- ابلاغ السلطات المختصة (إدارة مكافحة جرائم الإنترنت)
- حجب الشخص المسيئ إليك (Block) حتى لا يستطيع التواصل معك

Exercises

1 Choose the correct answer:

1-.....Is a repeated unkind behavior towards someone.

- a. Hacking
- b. Headache
- c. Bullying

2-If you see a post from an unknown person bullying you, what do you do?

- a. I will share this post.
- b. I will block them.
- c. I will bully them.

3-If you found your profile picture on another account on Facebook, this is called

- a. online bullying
- b. identity theft
- c. unreliable source

4- What are the actions that could expose you to Identity theft?

- a. Blocking unkind people
- b. Using strong password
- c. Communicating with strangers

5- If you accidentally saw a scary image on a website, what would you do?

- a. Forward this image to your friend.
- b. Ask a family member to help you.
- c. Never go online again.

6- Online bullying makes you

- a. lose confidence
- b. happy and stronger
- c. an unkind person



2 Put (✓)or (X):

- 1- bullying is behaving in an unpleasant manner towards other people.()
- 2- Not using the internet is the best solution to avoid online problems. .()
- 3- Online problems are common and you can always get.()
- 4- There are unknown people on social media who want to communicate holder for the purpose of data theft. .()
- 5- Communicating with strangers can help you avoid online problems. .()
- 6- Online bullying causes a person to lose confidence and feel trapped. .()

Hassan ELMELIGY

Lesson 5 (My personal digital safety Plan)

If your password is easy to guess, people can get into your account .

This is called **hacking**

How to stay safe while using the Internet ?

- Have **strong Password**, unexpected and hard to guess
- **Don't use the same password** for all your accounts.
- Use **antivirus** software to protect your device from virus



كيفية المحافظة على أمانك أثناء استخدامك الإنترنت

- اختيار كلمات مرور Password قوية و غير متوقعة ويصعب تخمينها
- اختيار كلمات مرور Password مختلفة لحساباتك على المواقع أو أجهزتك المختلفة
- استخدام برامج مكافحة الفيروسات لحماية جهازك من الإصابة بالفيروس
-

How to create passwords is strong to prevent your device from being hacked or hacked

- It should be at least **8** characters long. and include letters, numbers and special characters.
- Shouldn't include **personal information** such as your name, date of birth or your address
- Use **a password manager** or keep a **list** of your passwords in a safe place that only you and your teacher or a family member have access to.

كيفية إنشاء كلمات مرور Password قوية لمنع جهازك من الاختراق أو القرصنة

- يجب ألا تقل عن ٨ حروف وتتضمن حروف وأرقام ورموز خاصة
- ألا تحتوى على معلومات شخصية مثل اسمك أو تاريخ ميلادك أو عنوانك
- يجب اعداد قائمة بكلمات المرور لحساباتك ويعرف بنظام إدارة كلمات المرور والاحتفاظ بها في مكان آمن يمكنك أنت ومعلمك وأحد أفراد أسرتك الوصول إليه ولا يعلمه أحد آخر .

Viruses

A type of dangerous program that infects the computer and causes big problems such as sending an email to everyone on your computer or deleting files

الفيروسات

نوع من أنواع البرامج الخطيرة التي تصيب جهاز الكمبيوتر وتسبب تلف في البيانات وحذف الملفات ومن الممكن ارسال رسائل بدون علمك

Antivirus software :

It **protects** your computer from viruses, **catches** viruses

before they affect your advice. It can also **remove** viruses and **fix** damaged files

**برامج مكافحة الفيروسات anti-virus**

يقوم بحماية جهاز الكمبيوتر من الإصابة بالفيروسات ويستطيع الامساك به قبل إصابة الجهاز وتقوم بالقضاء عليها وإصلاح الملفات

Exercises**1 Choose the correct answer:****1-Using easy passwords could expose you to.....**

- a. hacking
- b. bullying
- c.viruses

2-A strong password must include at least..... characters

- a. six
- b. eight
- c. ten

3-Which password is the strongest one?

- a. abc12345
- b. A@b56
- c. H@68#agB

4- Your password shouldn't include..... because the hacker can guess it.

- a. small letters
- c. special characters
- b. your personal information

5-To remember your password easily, you have to

- a. use the same password for all your accounts
- b. use easy and short passwords
- c. keep a list of your passwords in a safe place

6- Anti-virus applications..... viruses before they affect your device.

- a. remove
- b.catch
- c. delete

**✓ -One of the ways to be safe when using the Internet is using
.....passwords**

- a. short

b. same

c. different

2 Put (✓) or (X):

1-It is better to use the same password for all your accounts to remember it easily. ()

2-A hacker is someone who bullies you on social media sites. ()

3- You must use anti-virus to protect your PC during surfing the internet. ()

4-A strong password should be at least eight capital letters. ()

5-Using a strong password makes you safer online. ()

6-Anti-virus apps remove viruses before they affect your device. ()

7-Viruses may send an email to everyone on your computer or delete your files. ()

8- Make sure you choose strong passwords which nobody can guess. ()

3 Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
Online problems	Description
1 Viruses	a. is unkind behavior that makes you lose confidence
2 Bullying	b. may include opinions or even lies.
3 Hacking	c. is using your personal information by strangers.
4 Unreliable sources	d. could damage and delete your files.

4 Why are the following passwords unsafe to be used?

Weak Password	Reason
1 Ahmed01288833775	
2 ad#@54t	
3 abcdefgh	
4 9-11-2000	

Lesson 6 (Practicing what you learned)

How to prepare research or digital reports, and what is the appropriate tool for displaying information?

PowerPoint presentation



It is a program produced by Microsoft that is help us design a **presentation** that contain text, sound effects, animation, images and special effects, and make text look interesting using **WordArt**.

You can also make your presentation appear like a **book** include texts and pictures.



كيفية اعداد بحث أو تقارير رقمية وماهى الأداة المناسبة لعرض المعلومات ؟

العروض التقديمية PowerPoint

هو برنامج من إنتاج شركة مايكروسوفت يستخدم لتصميم عروض تقديمية تحتوى على نصوص ومؤثرات صوتية وحركية وصور وتأثيرات مميزة وتجعل شكل النصوص والكتابة رائعا من خلال استخدام **WordArt**

Videos

You can make your own video to present your research. Present ideas with audio and video, or interview others, and some fun effects can be added through some applications.

You only need a laptop, tablet or a cell phone with a camera and microphone

مقاطع الفيديو

من الممكن إضافة مقاطع الفيديو إلى بحثك وتعرض أفكارك بالصوت والصورة أو تجرى مقابلات مع آخرين ويمكن إضافة بعض التأثيرات الممتعة من خلال بعض التطبيقات المتخصصة ولا تحتاج سوى جهاز كمبيوتر أو تابلت أو تليفون محمول مزود بكاميرا وميكروفون داخلي



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D.M.RAZK

موقع الدكتور محمد رزق معلم الكيمياء التعليمي

Posters

Fun and effective way to present your research

- Choose **fun colors** when writing information that include art like drawing or photos
- Make sure that the **text is large enough** for others to read from a distance.
- Always present your ideas clearly.
- Always remember to **credit your sources**.

الملصقات الإعلانية

يجب علينا مراعاة الأتي :

- استخدام ألوانا زاهية لعرض المعلومات وإضافة الصور والرسومات والأشكال
- الكتابة بخط عريض ليتمكن الآخرون من قراءة المعلومات من بعيد
- لابد أن تكون المعلومات والأفكار واضحة وبسيطة
- لا تنس ذكر مصدر المعلومات



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Exercises

Choose the correct answer:

1-is a Microsoft program that enables you to design a presentation.

- a. MS Word
- b. MS Excel
- c. PowerPoint

2- Researchers can include their interviews with others in their

- a. posters
- b. videos
- c. presentations

3- Microsoft PowerPoint includes all the following, except

- a. interviews
- b. texts
- c. WordArt

4- WordArt in PowerPoint makes texts look

- a. smaller
- b. interesting
- c. boring

5- To design a creative poster, you must

- a. use texts without drawings
- b. use drawings without texts
- c. use texts with fun colors and drawings



2 Put (✓)or (X):

- 1- Scientists use PowerPoint®, videos or personal blogs to present their researches. ()
- 2- The presentation of PowerPoint may include texts, photos and interviews. ()
- 3- You can interview others using your mobile phone or laptop. ()
- 4- Always make sure that the text is small enough in your poster. ()

Revision on Theme 2**1 Choose the correct answer:**

1-We use a..... to print the paper outside the computer.

- a. display screen
- b. speech synthesizer
- c. printer

2-If your friend sent you friend request on a social media site, you must.....

- a. turn off the device
- b. delete the friend request
- c. verify his identity

3-.....includes your name, address and date of birth.

- a. Personal information
- b. Spam message
- c. Download file

4-If a friend sends you a file and you want to save it on your device, you need to..... .

- a. download the file
- b. block the file
- C. scan the file

5-.....is one of the advantages of ICT tools

- a. Bullying your colleagues
- b.block the file
- c. Helping people of determination

6.....is one of the most reliable sources on the internet.

- a. Published articles
- b. Digital blogs
- c. The Egyptian Knowledge Bank

7-The..... program protects your devices from the dangers that they may be exposed to.

- a. word processing
- b. operating system
- c. anti-virus

8- You can design your CV using a..... program

- a. screen magnification
- b. word processing
- c. speech synthesizer

9-You can prepare a presentation using.....

- a. PowerPoint
- b. Word
- c. Excel

10-.....protects your devices from the dangers that you may be exposed to.

- a. Word processing
- b. PowerPoint
- c. Anti-virus

11-It's..... that someone shares a picture of you without your permission.

- a. kind
- b. unkind
- c. normal

12- One of the strong passwords is.....

- a. ahmed
- b. Ahmed @3#
- c. 12345678

2 Put (✓) or (X):

1-You can download files to your device without the internet. ()

2-Blocking is one of the ways to communicate with your friends online. ()

3-The quotation mark "" is used to limit the search results you want. ()

4- You must ask permission before posting any information related to your friends. ()



5-You can enter the library of the Egyptian Knowledge Bank

(EKB) for free. ()

7-You can interview others using your mobile phone or laptop. ()

8-Without the internet, you cannot see a video after downloading it. ()

9- You must keep your personal data private to avoid viruses
or spam messages. ()

10- Google is the most famous operating system all over the world. ()

3 Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1 Spam messages	a. allow you to communicate online.
2 Personal information	b. prevents this person from seeing your posts.
3 Instant messages	c. may include unwanted advertisement.
4 Blocking someone	d. may include your address or your name.

Lesson 1: Explorer in Action

archaeologist	عالم اثار
explore	يكتشف
digging	الحفر
save	يوفر
time	الوقت
effort	الجهد
cost	التكلفة
satellites	قمر صناعي
drones	طائرة بدون طيار
GPS	نظام تحديد المواقع العالمي
measure	يقيس
Magnetic field	المجال المغناطيسي
metals	المعادن
underground	تحت الأرض
discover	يكتشف
buried	المدفونة
places	الأماكن
locations	المواقع

Lesson 2 (components of computer systems)

device	جهاز
receives	يستقبل
transforms	يحول
processing	معالجة
shapes	أشكال
differ	يختلف
model	النوع
manufacture date	تاريخ الصنع
browse	يتصفح
presentations	عروض تقديمية
Create	إنشاء
spreadsheet	جداول بيانات
enter	ادخال
output	اخراج
select	يحدد
blind	المكفوفين
alternative	بديل
allow	يسمح
hear	يسمع
see	يرى
speech disabilities	صعوبات في النطق

Lesson 3 (Software and Operating Systems)

Software	برمجيات
Hardware	مكونات مادية
Operating system	نظام تشغيل
applications	برامج
design	تصميم
texts	نصوص
documents	المستندات
Spreadsheets	جداول بيانات
brain	العقل
converts	تحويل
diagram	مخطط
the user	المستخدم
perform	ينفذ
task	مهمة
include	يحتوى أو يشمل
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Lesson 4 (Supporting People of Determination)

People of Determination	الأشخاص ذوي الهمم
Assistive Technology	التكنولوجيا المساعدة
screen magnification	مكبر الشاشة
enlarges	يكبر
Visually Impaired	ضعاف البصر
interact	يتفاعل
Hearing aids	سماعات الأذن
have trouble hearing	مشاكل بالسمع
speech and language disabilities	صعوبات في النطق
Hand bike	دراجة ثلاثية العجلات
wheels	عجلات
replaces	يستبدل
limb	طرف
touch	اللمس
raised symbols	رموز بارزة
wheelchair	كرسي متحرك
Speech synthesizer	مركب الكلمات

Lesson 5 (Common ICT problems and solutions)

problems	مشاكل
face	تواجهه
restart	اعادة تشغيل
update	تحديث
uninstall	إزالة برنامج
cable	سلك
connected	يتصل
replace	يستبدل
motherboard	اللوحة الأم
buttons	أزرار
keyboard	لوحة المفاتيح
Search	يبحث
looking for	يبحث
solve	يحل

Lesson 6 (collection, analyzing and graphing data)

digital tools	الأدوات التكنولوجية
organize	ينظم
collect	يجمع
sources	مصادر
print	مطبوعة
Records	سجلات
reports	تقارير
surveys	استطلاع رأى
experiments	تجارب
Analyze	يحلل
review	يراجع
findings	البيانات التي وجدتتها
interpret	تفسير
trends	الأنماط المتكررة
Graph	عرض
stage	مرحلة
facilitate	يسهل
bar graph	الرسم البياني العمودي
present	يقدم
compare	يقارن
explains	يشرح
clearly	بوضوح

categories	فئات
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Theme 2 Lesson 1 (Online dangers and how to be safe)

Unsafe Websites	مواقع غير آمنة
steal	يسرق
personal data	بيانات شخصية
address	عنوان
Be careful	كن حريصا
links	روابط
spam	الرسائل المزعجة
includes unwanted messages	رسائل غير مرغوبة
advertise	يعلن
viruses	برنامج خطير
unfamiliar address	عنوان غير مألوف
unknown	غير معروف
ALL CAPITAL LETTERS	حروف كبيرة
Be sure	تأكد
chatting	مراسلة
block	حظر
unkind	غير لطيف
Leave	يغادر
Think carefully	فكر بحرص
damage	يدمر 70

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track	يتتبع
without	بدون

Theme 2 Lesson 2 (Using ICT Tools in a healthy and ethical way)

tag	إشارة
identity	هوية
ask	يطلب أو يسأل
permission	الإذن
credit a source	ذكر المصدر
Respect	احترام
banned sites	المواقع المحظورة
inaccurate	غير دقيق
harmful	ضار
Positives	ايجابيات
Negatives	سلبيات
the news	الأخبار
Upload	تحميل أو رفع
download	تنزيل
eye strain	ارهاق بالعين
headaches	صداع
rely on	اعتمد على
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Theme 2 Lesson 3 (How to search online)

Theme 2 lesson 4 (Who can help you with online problems?)

Bullying	التنمر
repeated	تكرار
unkind	غير لطيف
behavior	تصرف
towards	تجاه
someone	شخص ما
posts	المنشورات
messages	الرسائل
Identity theft	سرقة الهوية
stolen	يسرق
account	حساب
Talk	تحدث
Block	حظر

Theme 2 Lesson 5 (My personal digital safety Plan)

Plan	خطة أو يخطط
guess	يخمن
hacking	الاختراق
strong Password	كلمة مرور قوية
unexpected	غير متوقع
same	نفس
protect	يحمي
at least	على الأقل
special characters.	رموز خاصة
list	قائمة
dangerous	خطير
infects	يصيب
causes	يسبب
sending	يرسل
deleting	يحذف
catches	يمسك
remove	يحذف
fix	يصلح

Theme 2 Lesson 6 (Practicing what you learned)

prepare	اعداد
presentation	عرض تقديمي
design	يصمم
sound effects	تأثيرات صوتية
animation	تأثيرات حركية
images	صور
special effects	تأثيرات خاصة
interesting	ممتعا
own video	الفيديو الخاص بي
audio and video	صوت وفيديو
Posters	الملصقات الاعلانية
effective	مميز ومؤثر
fun colors	ألوان زاهية
art	الفن - الرسم
Make sure	تأكد
large	كبير
distance	المسافة
present	يقدم
clearly	بوضوح
credit your sources	ذكر مصدر المعلومة

موقع الدكتور محمد رزق التعليمي



امسح الباركود بالموبيل لتثبيت
التطبيق وتحميل كل الملازم مجاناً وبسرعة



حمل التطبيق الآن



كورسات ونتائج امتحانات



ملازم ثانوي



ملازم اعدادي



ملازم ابتدائي



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